

# Natural Heritage & Endangered Species Program

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## Bridle Shiner

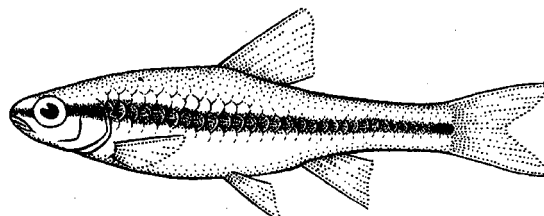
*Notropis bifrenatus*

State Status: **Special Concern**

Federal Status: None

**Description:** The Bridle Shiner is a small minnow (< 50 mm) that is straw colored with a distinct dark lateral band that starts at the tip of the snout and ends in a spot at the base of the caudal fin. This minnow has a large eye and a somewhat pointed, slightly subterminal mouth. The scales on the sides of the body have distinct dark outlines. The breast is usually 90-100% scaled and the belly is fully scaled. The lateral line is generally incomplete. Bridle Shiners have 32-36 lateral line scales. They generally have 8 dorsal rays, 7 anal rays, 8 pelvic rays, and 12 pectoral rays. They have a silvery and lightly speckled peritoneum (lining of the body cavity).

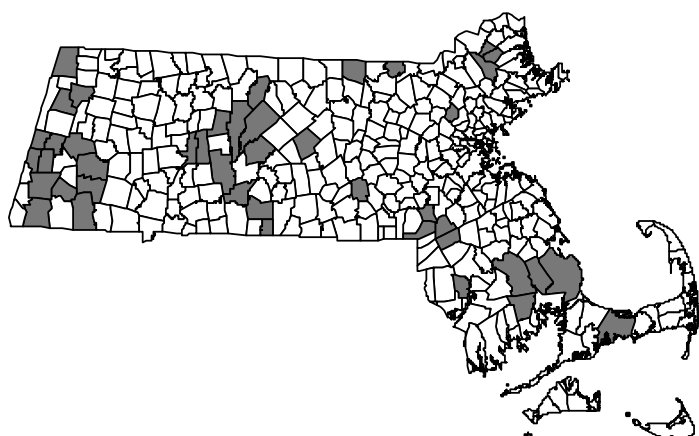
**Habitat:** Bridle Shiners are found in clear water in slack areas of streams and rivers and are also found in lakes and ponds. They are associated with moderate levels of submerged aquatic vegetation with open areas where they can school. Bridle shiners seem to prefer sites with high coverage of submerge aquatic vegetation along the bottom 25 cm. In addition sites with bridle shiner tended to have more aquatic vegetation with feather-like leaves such as *Ceratophyllum*.



Drawing by Laszlo Meszoly, from Hartel et al. 2002. Inland Fishes of Massachusetts.

**Life History:** The Bridle Shiner matures at a year and only lives for about 2 years. Spawning occurs during the day from late May to the end of July but may occur as late as August. Spawning sites are generally located in water depths of 0.6 m in clearings surrounded by dense submerged vegetation, such as *Myriophyllum* or *Chara*. Eggs are demersal (sink) and adhere to vegetation. Young of the year remain in vegetation until late July when they begin to school with other young of the year bridle shiners, and by August they join adult schools. Bridle Shiners are visual predators and feed only during the day. Generally they feed in the water column or around aquatic vegetation, however in spring before aquatic vegetation has started growing they feed at the bottom. Their diet mainly consists of animals, such as chironomidae, cladocera and copepoda. Bridle Shiners are not good swimmers and are ideal prey for species such as pickerel, bass and perch species.

**Threats:** Habitat alterations due to turbidity, flow alterations, draining of ponds, and exotic species are major threats to Bridle Shiners. Bridle Shiners are visual feeders and turbidity will decrease their feeding efficiency. Bridle Shiners are also poor swimmers and as such changes in flows can negatively impact their habitats. Exotic plants often dominate and form large monocultures which can change Bridle Shiners preferred habitats of vegetation with open areas.



Distribution in Massachusetts

1977 - 2002

Based on records in Natural Heritage Database

### Breeding Season

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec